

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

HAMMER-TOE

ETIOLOGY

LEONARD W. ELY, M. D. (Stanford Hospital, San Francisco).—At first sight this seems a very simple question, but on further thought the question is not as simple as it seems. As usual, in foot deformities the shoe is blamed; and as the second toe is the one most often afflicted, the pushing of it over by the great toe is supposed to be responsible, but the great toe could just as well push over the other toes. Further, people wear about the same kind of shoes, but not one in a hundred, perhaps, is afflicted with this deformity. Again, even when the toes are deformed by tight shoes, they are not deformed in the peculiar manner of hammer-toe. And still, the peculiar stiff contracture of this deformity is difficult to explain on this hypothesis. Indeed, even when treatment is started early in life, the deformity is hard to correct.

Hammer-toe often begins in early life and, in spite of treatment, slowly progresses until it reaches its complete stage. It usually runs in families: either a parent or a grandparent of the patient will be found to have it; and of a number of children in the same family only one, as a rule, will have it. We are forced to the conclusion, therefore, that hammer-toe is a congenital deformity. This will account for its peculiar form, for its occurrence, and for its slow and steady increase until it reaches its full degree. It explains practically everything, in fact, about the causation of hammer-toe.

* * *

SYMPTOMS AND PROGNOSIS

SAMUEL S. MATHEWS, M. D. (1913 Wilshire Boulevard, Los Angeles).—The symptoms of this deformity are due entirely to the pressure of the shoe on the top of the flexed toe, and a downward thrust of the terminal phalanx onto the sole, thus resulting in painful calluses. The patient often-times has to resort to a very soft shoe or slipper, to be able to walk with any appreciable amount of comfort, and in desperation he is willing to have the toe removed, this being a request when frequently seeking medical aid for the first time. Most commonly affected is the second toe, in which the first phalanx is dorsiflexed and the second plantar flexed, while the third may be extended with the toe held fixed in this position. There is a constant pressure being exerted by the top of the shoe on the apex of the deformity and the resultant callus formation on the terminal phalanx. This condition must not be confused with the claw-like toes met with in various forms of talipes, in which all the toes are affected. These symptoms are much more severe and also much

more difficult to treat, from a surgical standpoint. It is quite common to find hammer-toe associated with halux valgus. The large toe rides over the second one and maintains the second and third phalanx of the second toe in a constant plantar flexed position. After a time there is an adaptive shortening of the long tendons and lateral ligaments of the joints.

Prognosis.—The prognosis in these cases is indeed gratifying if properly treated. The milder cases will often correct themselves when a proper, well-fitted shoe is worn. In the young child sufficient amount of correction may be gained by constantly stretching the existing contracture, and in fixing an adaptive splint to the sole of the affected toe at night. In the more severe cases we can expect excellent results where a wedge-shaped excision is done, removing the articular cartilage of both sides of the joint, thus allowing the joint to ankylose in extension. Some advise the removal of the toe, which I feel is very unwise; because its absence many times leads to a disability worse than the original hammer-toe, and that is the tendency toward production of halux valgus.

* * *

TREATMENT

ERNEST W. CLEARY, M. D. (490 Post Street, San Francisco).—This appears to be a very small subject, but it is actually a source of distress out of all proportion to the size of the member involved. Someone has significantly parodied the saying, "Great oaks from little acorns grow" into the equally true statement, "Great aches from little toe-corns grow."

When a toe presents such a deformity that severe contracture of its flexor tendon has brought the end of the toe directly against the sole of the shoe, and the sharp angulation of the interphalangeal joint forces the dorsum of that joint into contact with the upper of the shoe, we call the deformity hammer-toe.

This deformity usually occurs in the second toe, but may be present in any one of the four smaller toes. The objective of treatment is to correct the deformity or to amputate the deformed toe.

Correction of Deformity.—This operation involves invading bone and joint tissue, and the parts should have a similar careful preoperative preparation to that which conscientious surgeons require before more extensive bone operations.

Preparation.—The whole foot back to the ankle should be thoroughly cleansed, with special attention to the area about the toe nail, either for two days prior to operation or twice during the day previous to operation.

Operation.—The mechanical objective of the operation is to shorten the toe so that it can be straightened out and lie in a normal position, with respect to the non-deformed toes and to the shoe. This is accomplished by taking a wedge-shaped mass of tissue with the base of the wedge on the dorsum of the toe and the width of the wedge base sufficient at the skin to remove all of the calloused part usually present over the angulated joint. In the center of the wedge-shaped portion removed from the bone lie the apposed joint surface of the phalanges. Both phalanges should be cut clear through with a small, very sharp chisel, not crushed with bone cutters or bitten away piece-meal with a rongeur. All of the articular cartilages of either face of the articulation should be removed. When the removal of the wedge has been completed and the tip of the toe has been lifted up toward the dorsum of the foot, until the interval left by the removal of the wedge is closed, the toe in this corrected position should be straight and normal in appearance, with relation to the other toes. Usually not more than one very fine, plain catgut suture is necessary to hold the subcutaneous tissues in apposition, and not more than three skin sutures of fine silk or dermal. Immobilization after operation should be definite for a period of at least fourteen days. Such immobilization can be effectively secured by bandaging the toe down firmly to a light aluminum splint on the plantar surface, and such splint should be somewhat racket-shaped, with the broad part fitting back under the ball of the foot. The surest and, in the writer's opinion, most effective form of immobilization is to enclose the foot in a light, well-padded plaster shoe extending back over the heel, but leaving the ankle entirely free. This plaster should be gently molded against the plantar and dorsal surfaces of the operated and adjacent toe. Stitches should be removed not later than the sixth day in order to minimize the degree of scar. For the second two weeks following operation only a very moderate amount of walking in well-fitting shoes should be permitted. The recovery should be sufficiently complete to permit any ordinarily strenuous use of the foot by the end of the fourth week following operation.

Amputation.—The indications for amputation are: (1) the presence of an infection caused by pressure on the dorsally angulated joint, and of such a degree that a satisfactory result from less radical measures is not reasonably to be anticipated; and (2) occurrence of the deformity in a little toe where the preservation of the toe is of lesser consequence and operation for the correction of the deformity is less likely to give a satisfactory result.

Laughter is the saving emotion of the human race, when genuine, for from its presence the cynic flees, the pessimist retreats, the misanthrope is driven to cover. Under its influence the sun shines in dark places, the birds bring again their choicest songs, the flowers lift their smiling faces, and the world becomes once more a worthwhile place in which to live.—Charles E. Whelan.

Conservation of Vision.—As a rule, neither tobacco nor alcohol directly affect the eyes, unless they have first attacked the general health, it is pointed out by Dr. Emanuel Krimsky, of Brooklyn, N. Y., answering some of the questions which are most frequently asked by patients, in a recent issue of "The Sight-Saving Review," quarterly journal of the National Society for the Prevention of Blindness (Summer, 1936).

"And yet," says Doctor Krimsky, "every eye specialist in every book on eye diseases gives prominent mention to blindness of varying degrees of severity from the prolonged and excessive use of either tobacco or alcohol in certain susceptible persons. It is extremely important to recognize blindness from tobacco or alcohol because immediate and complete abstinence will often restore vision, unless the case has progressed too far. Wood alcohol blindness is permanent and cannot be cured."

The warning that a black eye may be more serious than funny is made by Doctor Krimsky as follows: "Among children—and sometimes among our alcoholic brethren—a black eye is regarded with honor, in the same sense that German students honor a scar on the cheek as evidence of duellistic prowess. If such an outward discoloration represented the whole story, we might have reason to laugh it away. But the inexperienced can see only skin-deep. It may be that the large majority of these cases can well survive the ordeal, even without having to go to a doctor. But that a certain number of these black eyes also show, on more careful examination, either a fracture of the skull or a hemorrhage into the eyeball with almost sudden blindness, is not generally known. It would seem reasonable, therefore, to submit all these eye injuries to medical examination, to avoid any possibility of permanent harm."

Regarding the danger of eyeglasses breaking and causing an injury to the eyes, he says: "However possible such an accident might seem, strangely enough, it very rarely occurs. Many busy eye specialists have never observed such a misfortune. And the reason is not difficult to understand. Those who wear glasses instinctively value their eyes more than those who do not, and the slightest shock or fear will automatically bring a sudden closure of the lids, with concomitant protection to the eye. For those who are not reassured, it is a comfort to know that lenses may now be obtained which are made of non-shatterable glass. This being the case, it is quite needless for a mother to deny her young child the safe glasses."

"More glasses are being worn now than in the past," Doctor Krimsky explains, "not because eyes are more defective—for they are not—but because the modern human has applied himself to occupations requiring close vision, unlike the pursuits of his forbears who lived on the soil, where close use of the eyes was seldom called into play. While eyes should be re-examined about once a year for glasses, and oftener in cases where eyes change more rapidly, it does not necessarily follow that lenses must be changed. For, while in some persons annual or biennial changes of glasses may be required, in others the same lenses may serve faithfully for ten or fifteen years."

To live in the temper and spirit of a learner, open-minded, unworped in judgment, free as far as light permits from delusions, eager to explore and inquire, quick to give up a confused idea and so gain a higher outlook, striving steadily to improve and to grow—these are watchwords of the intellectual life.

Eat less; chew more.
Waste less; give more.
Ride less; walk more.
Go less; sleep more.
Talk less; listen more.
Worry less; work more.
Idle less; think more.
Preach less; practice more.
Clothe less; bathe more.
Scold less; laugh more.